

3. (Amended) The method [Method] according to claim 2 in which the switch segmentation [takes the form of] is a simulation of a training time series of the system or of the time series to be investigated with several, competing prediction models.

In Claim 4, line 1, please change "Method" to --The method--.

In Claim 5, line 1, please change "Method" to --The method--.

In Claim 6, line 1, please change "Method" to --The method--.

In Claim 7, line 1, please change "Method" to --The method--.

8. (Amended) The method [Method] according to [one of the preceding claims] Claim 1 in which the series of mixed prediction models  $g_i$  is detected by determining a prediction for each time increment with each of the possible prediction models, resulting in a time-dependent prediction matrix from which a mean prediction error for randomly selected segmentations can be derived, whereby the sought series of mixed prediction models  $g_i$  is the segmentation with the smallest prediction error or the maximum probability.

In Claim 9, line 1, please change "Method" to --The method--.

10. (Amended) The method [Method] according to [one of the preceding claims] Claim 1 in which drift segmentation is followed by an additional step to reduce the number of prediction models used for modeling where the number of prediction models is reduced sequentially, associated with a determination of the mean prediction error, until a further reduction of the number of prediction models means an increase in the prediction error.

11. (Amended) The method [Method] according to [one of the preceding claims] Claim 1 in which the time series of at least one of the system variables  $x(t)$  comprises a time series of physiological parameters described by the Mackey-Glass delay differential equation  $dx(t) / dt = -0.1x(t) + 0.2x(t - t_d) / 1 + x(t - t_d)^{10}$ .

12. (Amended) The method [Method] according to [one of the claims] Claim 1 [through 11] in which the time series of at least one of the system variables  $x(t)$  comprises